

All sightings were in areas of semi-degraded subarid thorn scrub. The region is relatively densely populated, with many small villages scattered throughout the forest. Some parts of the forest have been cleared for timber, charcoal and agriculture, and low densities of livestock (mainly zebu and goats) are grazed throughout. The area suffers from annual droughts and is under increasing human pressure.

Hawkins *et al.* (1997) speculated that the range of the Red-shouldered Vanga might extend up to 250 km south from Toliara, since there was an abundance of suitable habitat close to the coast. Our observations have confirmed that the species is present in good numbers at least as far south as Lintsa and, given that similar habitat exists to the south and east, it seems likely that the range of the Red-shouldered Vanga extends beyond our survey area. More survey work is needed to determine more precisely the range of this, and other, threatened species, in this remote region of Madagascar.

#### Acknowledgements

Many thanks to Frank Hawkins (BirdLife International), and the staff at Projet ZICOMA for all their help with planning the expedition. Sue O'Brien (Cambridge University) helped with survey work.

#### References

- Goodman, S.M., Hawkins, A.F.A. & Domergue, C.A. 1997. A new species of vanga (*Vangidae*, *Calicalicus*) from southwestern Madagascar. *Bull. Brit. Orn. Cl.* 117: 5-10.
- Hawkins, A.F.A., Rabenandrasana, M., Marie, C.V., Rabeony, O., Mulder, R., Emahalala, R.E. & Ramariason, R. 1997. Field observations of the Red-shouldered Vanga *Calicalicus rufocarpalis*: a newly described Malagasy endemic. *Bull. African Bird Club* 5: 30-32.
- ZICOMA. 1999. Zones d'Importance pour la Conservation des Oiseaux a Madagascar. 266pp. Projet ZICOMA, Antananarivo, Madagascar.

*Addresses:* Innes Sim, Royal Society for the Protection of Birds, Dunedin House, 25 Ravelston Terrace, Edinburgh, EH4 3TP, UK; Sama Zefania, Projet ZICOMA, BP 1074, Antananarivo, Madagascar.

© British Ornithologists' Club 2002

## **The first nest and egg records of Black-eared Ground Thrush *Zoothera cameronensis*, Budongo Forest, western Uganda.**

*by* **Jeremy A. Lindsay**

*Received 26 May 2001*

The Black-eared Ground Thrush *Zoothera cameronensis* is a poorly known forest understorey species of equatorial Africa. Its obscurity is reflected in the confusion that has existed over the identity of certain specimens collected in western Uganda and in the Democratic Republic of Congo (DRC, formerly Zaire) during the early to

mid 20<sup>th</sup> century (Prigogine 1965, 1978, Friedmann & Williams 1968, Dranzoa 1994, Lindsell unpublished). This confusion centred on the distinction between the *batesi* race of Grey Ground Thrush *Zoothera princei* and the then newly recognised eastern *graueri* race of *Z. cameronensis*. To date, all such distinctions continue to rely purely on morphology as no behavioural or other biological data exist for *Z. cameronensis*.

*Z. cameronensis* has been recorded from Cameroon, Gabon, the DRC and Uganda (Clement & Hathway 2000). It is known in Uganda from Budongo and Bugoma Forests, and Kibale Forest, if the form *kibalensis* is considered to be this species (Britton 1980, Urban *et al.* 1997). Erickson Wilson (1995), later followed by Rossouw & Sacchi (1998), listed *cameronensis* as occurring in Bwindi Forest but neither Kalina & Butynski (1996) nor Carswell *et al.* (in press) consider there to have been a record from Bwindi. *Z. princei* is known in Uganda only from Semliki Forest (Dranzoa 1994; Lindsell unpublished) with specimens collected from there being held at Makerere University Department of Zoology Museum (R. Kityo, pers. comm.).

Neither Urban *et al.* (1997) nor Clement & Hathway (2000) described any behaviour for *Z. cameronensis*, other than that it forages on the ground and scratches in leaf litter. Vocalizations were not described, though the British Library holds recordings from birds in the hand (Wildlife ref. no. 80385, cc2414 & cc2413, R. Ranft pers. comm.). Breeding information is restricted to data from specimens; Urban *et al.* (1997) noted breeding condition females in Zaire and Uganda in May and June, fledglings there in May, breeding condition males in Gabon in December to January, and an immature in June.

I present here the first observations of the nest and eggs of *Z. cameronensis* and discuss these with respect to *Z. princei* and habitat selection.

## Location of records

Budongo Forest Reserve is situated in western Uganda between 1°37' and 2°03'N and 31°22' and 31°46'E. The forest is moist, tall and semi-deciduous and naturally dominated by one tree species, *Cynometra alexandri* (Eggeling 1947). The reserve occupies c. 793 km<sup>2</sup>, of which the forested section is 428 km<sup>2</sup>. All breeding records of *Z. cameronensis* were made in one management compartment of the forest of c. 7.5 km<sup>2</sup>, classified as 'Cynometra-mixed' forest (Eggeling 1947). This compartment was set aside in the 1930s as the Nyakafunjo Nature Reserve, and has never been commercially logged. The dominant tree species is *Cynometra alexandri*, but there are also many mahoganies (*Khaya* and *Entandrophragma*) in the canopy, which is one of the tallest in East Africa. The understorey is noticeably clearer (up to 50 m horizontal visibility) than the surrounding compartments which were selectively logged and treated with arboricide, and the forest floor is largely covered with a low growing herb (*Leptaspis*). The only verifiable report of a *Z. cameronensis* in Budongo away from this compartment is of a single bird seen in the Kaniyo Pabidi section of the reserve in July 1999 (Borrow 2000 and pers. comm.) in forest with a similar structure, though lacking a thick herbaceous ground layer.

## Breeding observations

Five nests were located in September and October 1999 (14, 21 and 28 September and two on 6 October). Nests were located from repeated observations of adult birds in a restricted locality, searches of clusters of dead leaves lodged in understorey shrubs, or observation of adult birds flushing from bushes. Four nests were within 1 m of a research trail and one was within 8 m, though with no intervening vegetation. All the nests were within an area of 50 ha.

Sitting adults were extremely shy and left the nest when an observer was still up to 25 m away. This behaviour contrasted markedly with common forest species such as greenbuls (*Pycnonotidae*) and some other Turdididae which allow observers to come as close as 1 m and even to be picked up off the nest (Keith *et al.* 1992). Flushed birds returned to the nest within 1–2 min.

Given their proximity and timing it is likely that two nests were from one pair of birds (see below). One of the five nests was inactive but identified on the basis of similarity of construction to the other four nests. Adult birds were seen attending all four active nests and eggs were eventually found in all four.

## Nest

All nests were open cups, loosely built of dead leaves, some twigs and dry bark with many hair-like strands (fungus). These strands were woven loosely to form the cup shape, but there was no mud lining. The internal diameter of one cup was 80 mm and depth 45 mm. The nest was always a self contained unit, not built into natural gatherings of dead leaves but often in a clear fork of a shrub, 1.2 - 3.5 m above ground with three at *c.* 2 m. One nest was built into the fork of a fallen dead branch which hung precariously in the outer twigs of an understorey shrub; the nest was unattached to the living shrub. Three were in isolated shrubs (*Rinoria*), one was just below the crown of a many-stemmed shrub (*Acalypha*) and one was in the fork of a small tree (10 cm dbh) situated in a relatively dense area of understorey shrubbery. In all cases the sitting adult had a largely unobstructed view across the forest floor, often for 360°.

## Clutch

Two clutches were of three eggs and two were of two eggs (mean 2.5). The eggs were gently tapered, pale turquoise/blue with brown speckling, denser towards the broad end with sometimes a clear patch on the broad end resulting in a halo of speckling. The degree of speckling varied with some having dense fine speckles and others having less dense and larger speckles. One measured egg was 18 mm x 26 mm with a mass of 4.7 g (prior to onset of incubation).

The timing of laying in one nest is worth noting: the nest was found empty at 0830 h on day one. By 0650 h on day 2 the first egg was laid, and the second egg by 1645 h on the same day. The adult was still sitting on two eggs at 1700 h on day 3, but on three eggs at 0700 h on day 4.

## Nest survival

All four active nests were eventually predated. In all cases the eggs were removed without the nests being damaged. The first nest was empty on the day after discovery. In the second nest, a single egg was predated from the clutch of two on day 10 or 11 after discovery, but the adult continued to incubate the remaining egg for at least the next 4 days; but by day 17 the nest was found to be empty. The third nest was discovered before the clutch was laid. Two eggs were laid on day two and a third by day four. The nest was predated by day eight. The fourth nest contained one egg for the first two days, a second egg on day three and a third egg by day five. This nest was predated by day nine. Two nests were within 90 m of each other with the second being discovered 22 days after the first nest was depredated. This suggests a renesting attempt. The first nest is deposited as a specimen with Makerere University Department of Zoology Museum and the fourth nest with the Natural History Museum, Tring.

## Discussion

These observations are very similar to those recorded for Grey Ground Thrush *Zoothera princei*. That species builds a 'bulky open cup of twigs, dead leaves and plant stems... lined with rootlets and plant fibres... situated 1.5–3 m above ground in fork in centre of crown of small isolated tree in understorey' (Urban *et al.* 1997, and see photo in Brosset & Erard 1976). *Z. princei* eggs are 'turquoise-blue to emerald green spotted and blotched with red-brown over lilac undermarkings' (Urban *et al.* 1997). Serle (1957) noted that what he presumed were *Z. princei* eggs were markedly truncated at the broad end. Brosset & Erard (1976) wondered about the identity of Serle's observations since the eggs they found for *Z. princei* were not distinctly truncated and were also slimmer and less spotted. Serle's eggs measured 22.8 x 19.6 mm and 23.6 x 19.5 mm and Brosset & Erard's was 25 x 18 mm. The egg described in this paper was closest to the dimensions of Brosset & Erard's; it also differed from Serle's in having heavier spotting towards the broad end (with the exception of the very end in some cases) and was not distinctly truncated. The mean clutch size reported here for *Z. cameronensis* at 2.5 does not differ greatly from the 2.2 reported for *Z. princei* from nine clutches (Urban *et al.* 1997).

Although it must now be concluded that *Z. princei* is not known from Budongo or Bugoma Forests where *Z. cameronensis* occurs (Lindsell unpublished *contra* Urban *et al.* 1997 and Clement & Hathway 2000), Plumptre (1997) caught both species (along with *Z. crossleyi* and *Z. oberlanderi*) in the Ituri Forest, DRC. They were not at exactly the same sites but very close to one another (Plumptre pers. comm.). Brosset & Erard (1977) also reported both species occurring at the same site, so it seems that both species can co-exist, which caused these authors to wonder as to their ecological distinction.

Brosset & Erard (1986) noted the conspicuous location of *Z. princei* nests (as did Serle 1957 if his record was of *Z. princei*). This was also found for *Z.*



*cameronensis*. Brosset & Erard (1977) considered *Z. princei* to prefer thick undergrowth, but field observations of foraging *Z. cameronensis* suggest a preference for a more open understorey in accordance with their nesting sites (pers. obs.). Once detected, *Z. cameronensis* has not proven shy to observe.

All breeding records in Budongo came from one forest compartment, which was also the only location (besides one recent sighting in Kaniyo Pabidi (Borrow 2000)), where field sightings and mist net captures have been made. Uganda's Forest Department conducted 59,795 metre net hours of mistnetting in Budongo and caught no *Z. cameronensis* (Howard *et al.* 1996). Owunji (1996) caught no individuals in 2085 captures and Plumptre (pers. comm.) caught only one in 1909 captures. Subsequently there have been a number of captures and sightings but all within the same compartment (Owunji 1998 and personal data). Areas of the forest adjacent to, but not within, this compartment have been equally well surveyed, and in some cases more so, but with no records. These surrounding areas have all been selectively logged and/or treated with arboricide in the past (Plumptre 1996). Though the canopy is often complete, the understorey is much thicker and rarely resembles the structure found in the preferred compartment. This implies that *Z. cameronensis* is highly restricted in this part of its range, persisting in only pristine forest conditions, apparently where *Cynometra alexandri* dominates. The only other locality in Budongo with a sight record is also dominated by this tree.

Finally, it is worth highlighting the ease with which nests were located. Though this may have had implications for the nesting success for this species, it does provide a method by which this species' status and biology may be investigated. Mist-nest captures are fairly rare, as are field sightings (Clement & Hathway 2000), but the discovery of five nests in a relatively restricted area of forest and in such a short period of time should encourage further efforts.

### Acknowledgements

Thanks to Mr Fred Babweteera, Professor Vernon Reynolds and the Budongo Forest Project, Uganda Forest Department, the Government of Uganda and the UNCST for providing the circumstances under which these observations could be made, Kennedy Andama for assistance in the field, Dave Willard in Chicago for checking skins, Richard Ranft for copies of recordings from the British Library archive, Peter Clement and Margaret Carswell for copies of forthcoming articles, John Quinn and Mike Wilson.

### References

- Borrow, N. 2000. Recent reports, Uganda. *Bull. Afr. Bird Cl.* 7: 71-77.
- Britton, P. L. 1980. *Birds of East Africa*. EANHNS, Nairobi.
- Brosset, A. & Erard, C. 1976. Première description de la nidification de quatre espèces de la forêt gabonaise. *Alauda* 44: 205-235.
- Brosset, A. & Erard, C. 1977. New faunistic records from Gabon. *Bull. Brit. Orn. Cl.* 97: 125-132.
- Brosset, A. & Erard, C. 1986. *Les oiseaux des régions forestières du Nord-Est du Gabon*. Vol. 1. Societe Nationale de Protection de la Nature, Paris.
- Carswell, M., Pomeroy, D., Reynolds, J. & Tushabe, H. in press. *Bird atlas of Uganda*. BOC/BOU, England.
- Clement, P. & Hathway, R. 2000. *Thrushes*. A. & C. Black, London.
- Dranzoa, C. 1994. Lyre-tailed Honeyguide *Melichneutes robustus* and Grey Ground Thrush *Zoothera princei batesi*: new records for Uganda. *Scopus* 18: 128-130.

- Eggeling, W. J. 1947. Observations on the ecology of the Budongo rainforest, Uganda. *J. Ecol.* 34: 20-87.
- Erickson Wilson, S. 1995. *Bird and mammal checklists for ten National Parks in Uganda*. National Biodiversity Databank, Makerere University, Kampala.
- Friedmann, H. & Williams, J. G. 1968. Notable records of rare or little-known birds from western Uganda. *Rev. Zool. Bot. Africaines* 77: 11-36.
- Howard, P., Davenport, T. & Matthews, R. 1996. *Budongo Forest Reserve biodiversity report*. Forest Department, Kampala, Uganda.
- Kalina, J. & Butynski, T. 1996. *Checklist of the birds of Bwindi-Impenetrable Forest, Uganda*. East Africa Natural History Society, Nairobi.
- Keith, S., Urban, E. K. & Fry, C. H. 1992. *The birds of Africa, volume IV*. Academic Press, London.
- Owiunji, I. 1996. *The long term effects of forest management on the bird community of Budongo Forest Reserve, Uganda*. Unpublished MSc. thesis, Makerere University, Kampala.
- Owiunji, I. 1998. *Biodiversity of Budongo Forest Reserve*. African Tropical Biodiversity Programme 1998 Report, MUIENR, Makerere University, Uganda.
- Plumptre, A. J. 1996. Changes following sixty years of selective timber harvesting in the Budongo Forest Reserve, Uganda. *Forest Ecology and Management* 89: 101-113.
- Plumptre, A. J. 1997. Shifting cultivation along the Trans-African Highway and its impact on the understorey bird community in the Ituri Forest, Zaire. *Bird Cons. Int.* 7: 317-329.
- Prigogine, A. 1965. Notes sur quelques Geokichla de la Republique du Congo. *Rev. Zool. Bot. Africaines* 71: 230-244.
- Prigogine, A. 1978. A new ground thrush from Africa. *Le Gerfaut* 68: 482-492.
- Rossouw, J. & Sacchi, M. 1998. *Where to watch birds in Uganda*. Uganda Tourist Board, Kampala.
- Serle, W. 1957. A contribution to the ornithology of the Eastern Region of Nigeria. *Ibis* 99: 628-685.
- Urban, E. K., Fry, C. H. & Keith, S. 1997. *The birds of Africa, volume V*. Academic Press, London.

Address: Edward Grey Institute of Field Ornithology, Department of Zoology, South Parks Road, Oxford OX1 3PS. jeremy.lindsell@zoo.ox.ac.uk

© British Ornithologists' Club 2002

## **Erroneous and unconfirmed bird records from Belize: setting the record straight**

*by H. Lee Jones*

*Received 13 June 2001*

Ideally, a bird species should not be included on any country list without proper documentation, no matter how many times the bird has been reported, how likely it is to occur, or how easy it may be to identify. Documentation need only consist of enough information to eliminate all other species conclusively. Sometimes this is straightforward, sometimes not. If the credentials of the person reporting the species are not known, then it is helpful (but not mandatory) if the bird is photographed or more than one person sees and reports on the bird. For difficult-to-identify species, documentation of the record can be more challenging, even for a seasoned veteran. In these cases, detailed notes with field sketches and, ideally, a photograph or specimen may be necessary, or a tape-recording of calls/song where appropriate.